ABSTRACT OF THE DISCLOSURE

Permissiveness of human cells to replication of susceptible pathogenic human viruses is reduced by treating the cells with a selective inhibitor of prenylation of a host cell protein. Target viruses, especially Flaviviridae, are predetermined to lack a CXXX box and prenylated viral protein, and to be replication-dependent on host protein prenylation. The general method comprises (a) contacting human cells subject to infection by the virus with an effective amount of a selective inhibitor of a prenylation enzyme of the cells; and (b) confirming a resultant reduction in permissiveness of the cells to replication of the virus. Targeted enzymes include prenyl biosynthetic enzyme like HMG CoA reductase farnesyl and/or geranylgeranyl transferase enzymes.